REMARKS/ARGUMENTS

The following remarks are respectfully submitted in response to the official action dated July 19, 2006, in this case. The long and circuitous history of the prosecution of this application is an object lesson in how patents should not be prosecuted in the U.S. Patent and Trademark Office. While one could discuss the details of action after action in which new art is relied upon each time old art is overcome, nothing could be more instructive than the fact that the principal reference now being relied upon is the same principal reference which was cited and overcome almost three years ago!

In the office action dated November 21, 2003, all of the claims were rejected as being anticipated by Bonne, U.S. Patent No. 6,361,206. Subsequent to a response which did not even include an amendment to the claims, this rejection was removed, and additional prior art was relied upon. Indeed, in each of the official actions received since that time, entirely new art was relied upon on each occasion, and in applicant's last response in this case it was pointed out that on five separate occasions, five different prior art positions had been expressed by the Examiner. Now, after a further narrowing amendment to the claims, we are back to rely on the citation of Bonne, and in fact on an allegation that Bonne somehow anticipates these amended claims, when it presumably did not anticipate them three years ago!

Applicant is entitled to a fair hearing, and one in which the Examiner considers the prior art as a whole and attempts to present what the Examiner considers to be the closest prior art being cited thereagainst. Based on the history of this case, applicant believes that this has certainly not occurred in this case. It is sincerely requested that the Examiner carefully consider the major deficiencies in the Bonne

reference, either alone or in combination, whether applied under § 102 or § 103, before repeating this rejection.

Claims 14-22 and 28-32 have been rejected as being anticipated by Bonne. The Examiner contends that in FIG. 1 of Bonne a tube 31 is disclosed for retaining a liquid, including a level lateral access opening sealed by a temperature sensor which is in direct contact with the liquid in the tube, and does not extend within the tube to significantly reduce the cross-sectional area thereof. The Examiner admits that Bonne does not discuss a domed portion, and then states that it would have been "obvious" to include a domed portion, even though the rejection in this case is said to be under § 102(e). Applicant will thus treat the rejection as though it had been made under § 103(a), which appears to be the case based upon the Examiner's stated position. In any event, the alleged obviousness is said to be based upon applicant's failure to disclose that a domed portion provides an advantage, is used for a particular purpose, or solves a stated problem, and then concludes that one would have expected applicant's invention to perform equally well with a domed portion because it will also allow for liquid flowing through the tube to come into direct contact with the sensor. This rejection is respectfully traversed for the reasons set forth hereinafter.

This rejection ignores the nature of Bonne, the specific limitations set forth in the present claims, and the overall nature of the present invention. Turning first to the present invention, its simplicity, elegance and functionality is clear on its face, particularly when compared to the prior art cited hereagainst. Applicant would first refer to FIG. 1 in this application, as follows:

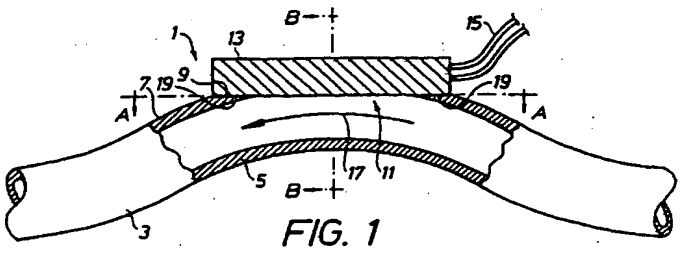

FIG. 1

As set forth in the claims, including claim 14, the claimed apparatus for measuring the properties of a liquid includes tube 3 with an outer wall having a lateral access opening 11 in the outer wall and a domed portion 7 including a sealing surface 9 surrounding the lateral access opening. The claims specifically require a sensor 13 which is sealingly disposed on the sealing surface for sealing the sealing surface. Thus, the sensor 13 itself, as can be seen in the drawings, seals that sealing surface and is in direct contact with the liquid in the tube for sensing properties thereof. The specific dependent claims require a level sealing surface, use of adhering means to adhere the sensor to the sealing surface, and the like. Claim 28 includes similar limitations with respect to the liquid-containing tube including a lateral access opening and a domed portion with a sealing surface, and requiring a sensor in direct contact with the lateral access opening for sealing the sealing surface and for direct contact with the liquid in the tube to sense the properties thereof.

Contrary to the Examiner's assertions, the specification clearly sets forth the distinct advantages of the present invention, including the domed portion which is said to provide "a large seal surface . . . that is formed substantially without edges and corners," and in which the sensor can be simply disposed in a reliably sealed manner. This permits reliable and simple sealing of the lateral access opening by the sensor itself, while readily bringing the sensor into direct

contact with the fluid. Indeed, it is further stated that formation of a domed wall portion and arrangement of a seal surface on the outside of same provides a larger seal surface comprising no edges or corners and on which the sensor can sit. This is nothing like Bonne.

Turning to the cited reference, the Examiner relies exclusively on FIG. 1A of Bonne. It is noted, of course, that FIG. 1A is a depiction by this patentee of what appears to be the alleged prior art (*see* Bonne, col.3, ll.23-28), and the device of Bonne is set forth primarily in FIGS. 4C through 4E thereof. This is noted not because FIG. 1A does not provide a prior art disclosure, but because the Bonne patent specifically states that this structure is not desirable and only provides partial protection and relatively short service life for the microsensors which are the subject of Bonne. Most importantly, the overall thrust of the Bonne reference is that the microsensors thereof, which are quite vulnerable to particle impact, must be protected from fluid impact, and in this regard various filters and baffles are employed for that purpose. Referring to FIGS. 1A, 4C, and 4D, it can thus be seen that in no case is the sensor 11 used to seal a sealing surface. Indeed, in each instance a far more complicated and expensive lateral side stream is employed, and the sensor is then mounted in that lateral side stream. The apparatus thus includes an insert 27 surrounding the sensor for protective purposes. Most significantly, FIG. 1A includes a shield or baffle 12 so that forced convection can transport the fluid sample with dust and droplets to shield 12, and then defusivity transport sample 14 between shield 12 and sensor 11. Thus, in referring to this prior art, including that of FIG. 1B, the patentee states that these devices avoid direct line-of-flight between an aerosol from the main flow stream 16 and the sensor 11. Similarly, in the invention of the Bonne patent shown in FIGS. 4C and 4E, a

single-stage baffle 25 is used to facilitate liquid runoff by side 26. Most importantly, the purpose behind baffle 25 is to keep the convection of a fluid from sensor 11.

It should be clear at this point that the deficiencies of Bonne are legion. In failing to disclose the overall nature and substance of the present invention, the structure in Bonne fails to provide any apparatus for measuring a liquid property in which a tube includes a lateral access opening in the outer wall and a domed portion with a sealing surface surrounding the lateral access opening, and most particularly not with a sensor which is sealingly disposed on the sealing surface surrounding the lateral access opening in which the sensor seals the sealing surface and is in direct contact with the liquid in the tube to sense properties thereof. Indeed, Bonne takes strenuous steps to avoid having the sensor seal any surface, or even be in contact with the surface of the tube and/or with the fluid itself. The overall invention in Bonne is intended to protect the sensor from direct fluid contact, and certainly does not provide any suggestion of the nature and substance of the present invention. The sensor in Bonne certainly does not, itself, seal a sealing surface, nor does it directly contact the liquid within a tube. Thus, the advantages discussed above of utilizing the domed portion in conjunction with the other requirements of the apparatus of the present invention are not met, suggested, or taught by Bonne. This reference in no way obviates the present invention, and withdrawal of this rejection and allowance of these claims is therefore respectfully solicited.

Claims 23-26 have been rejected as being unpatentable over Bonne as modified by Abrams under 35 U.S.C. § 103(a). After admitting that Bonne does not disclose a tube being either elastic, flexible or rigid, and made of glass, plastic or metal, Abrams is said to teach known use of elastic, flexible and rigid

tubes made of glass, plastic or metal at column 17, lines 14-19 thereof. It is thus said to be obvious to modify Bonne with a tube which is elastic, flexible or rigid and which is made of glass, plastic or metal as taught by Abrams since this would allow use of a tube of variable stiffness and material depending on need. This rejection is respectfully traversed in view of the above arguments and for the reasons set forth hereinafter.

Applicant, of course, does not pretend to have invented elastic, flexible or rigid tubes or tubes made of metal, plastic or glass. It is only in combination with the elements of claim 14 that these limitations have significance. Applicant would therefore reiterate all of the above-noted contentions with respect to the clear deficiencies of the Bonne reference, and note that combination with Abrams, even if proper, does not even pretend to overcome these deficiencies.

Claim 27 has been rejected as being unpatentable over Bonne as modified by Karlsson under 35 U.S.C. § 103(a). After admitting that Bonne does not disclose the use in a dialysis monitor, Karlsson is said to teach the known use of a sensor in direct contact with a fluid in a dialysis monitor in column 1, lines 10-16 to analyze liquids for microdialysis purposes. The Examiner thus concludes that it would be obvious to modify Bonne by using it as a dialysis monitor since this would provide the system with a way of analyzing liquids for microdialysis purposes. This rejection is respectfully traversed in view of the above arguments and for the reasons set forth hereinafter.

Once again, applicant does not claim to have invented dialysis monitors. However, the use of Bonne in connection with dialysis is not suggested by these references, and in any event, applicant reiterates each of the above-noted contentions with respect to the deficiencies of Bonne with respect to the principal limitations in each of these claims.

It is therefore respectfully requested that the Examiner reconsider the rejection of all of the claims in this application, which is primarily based on the Bonne reference, in light of the clear distinctions between the invention set forth in the amended claims in this application and that disclosed by Bonne. Applicant believes that he has more than adequately demonstrated the patentable nature of this invention, and that further rejection based on the Bonne reference cannot be justified.

If, however, for any reason the Examiner still does not believe that such action can be taken at this time, it is respectfully requested that she telephone applicant's attorney at (908) 654-5000 in order to overcome any further deficiencies which the Examiner might believe exist with respect to the allowance of this application.

Finally, if there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 12-1095 therefor.

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Respectfully submitted,

By 

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